

<b>Interview Summary</b>	Application No.	Applicant(s)	
	10/046,444	TRIPATHI ET AL.	
	Examiner	Art Unit	
	Cicely Ware	2634	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Cicely Ware. (3) Attorney Darrin Harris.  
 (2) Attorney Frank C. Nicholas. (4) \_\_\_\_.

Date of Interview: 23 January 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference  
 c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.  
 If Yes, brief description: \_\_\_\_.

Claim(s) discussed: 1-30.

Identification of prior art discussed: \_\_\_\_.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
 Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: a. Claim 5, line 12, delete ",wherein  $y(i)$  is the samples, is the vector"

b.Claim 5, line 15, delete " whose  $th$  element has been set to zero,  $f(n)$  is the feed-forward filter, and  $b(n)$  is the feedback filter."

c.Claim 5, line 14, delete " $)*$ ", insert " $)*$ ", wherein  $y(i)$  is the samples, is the soft symbol estimate whose  $th$  delay element has been set to zero,  $f(n)$  is the feed-forward filter, and  $b(n)$  is the feedback filter,  $M$  is a number of data symbols in a packet and  $H$  is a Hermitian transpose (a term of the art)."

d.Claim 13, line 14, delete ",wherein  $y(i)$  is the samples, is the"

e.Claim 13, line 17, delete "vector whose  $th$  element has been set to zero,  $f(n)$  is the feed-forward filter, and."

f. Claim 13, line 16, delete " $)*$ ", insert " $)*$ ", wherein  $y(i)$  is the samples, is the soft symbol estimate whose  $th$  delay element has been set to zero,  $f(n)$  is the feed-forward filter, and  $b(n)$  is the feedback filter,  $M$  is a number of data symbols in a packet and  $H$  is a Hermitian transpose (a term of the art)."

g.Claim 23, line 12, delete ",wherein  $y(i)$  is the samples, is the"

h.Claim 23, line 15, delete" vector whose  $th$  element has been set to zero,  $f(n)$  is the feed-forward filter, and."

i. Claim 23, line 14, delete " $)*$ ", insert " $)*$ ", wherein  $y(i)$  is the samples, is the soft symbol estimate whose  $th$  delay element has been set to zero,  $f(n)$  is the feed-forward filter, and  $b(n)$  is the feedback filter,  $M$  is a number of data symbols in a packet and  $H$  is a Hermitian transpose (a term of the art)."

j. Claim 21, line 1, delete "A computer readable medium storing a computer program", insert "A computer readable medium storing a computer executable program code, the code, when executed, performing the steps"

k. Claim 21, line 3, delete "computer readable code for".

l. Claim 21, line 6, delete "computer readable code for".

m. Claim 22, line 2, delete "computer readable code for".

n.Claim 23, line 1, delete "A computer readable medium storing a computer program", insert "A computer readable medium storing a computer executable program code, the code, when executed, performing the steps"

o.Claim 23, line 3, delete "computer readable code for".

p.Claim 23, line 4, delete "computer readable code for".

q.Claim 25, line 2, delete "computer readable code for".

r. Claim 25, line 4, delete "computer readable code for".

s.Claim 26, line 2, delete "computer readable code for".

t. Claim 28, line 2, delete "computer readable code for".

u.Claim 28, line 3, delete "computer readable code for".

v.Claim 29, line 2, delete computer readable code for".

w. Claim 29, line 4, delete computer readable code for".

x.Claim 30, line 2, delete computer readable code for".

y.Claim 2, delete: The method of claim 1, further comprising: generating a set of hard estimates of bits based upon a computation of a third feed-forward filter and a third feedback filter as a function of a second set of soft symbol estimates.", insert "The method of claim 1, further comprising: generating a set of hard estimates of bits based upon a computation of the second feed-forward filter and the second feedback filter as a function of a second set of soft symbol estimates."

z.Claim 4, delete "The device of claim 3, further comprising: means for generating a set of hard estimates of bits based upon a computation of a third feed-forward filter and a third feedback filter as a function of a second set of soft symbol estimates.", insert "The device of claim 3, further comprising:means for generating a set of hard estimates of bits based upon a computation of the second feed-forward filter and the second feedback filter as a function of a second set of soft symbol estimates."

aa. Claim 5, delete "A method for decoding a packet transmitted over a channel, the packet including a plurality of samples, said method comprising: providing a first set of soft symbol estimates; and computing a first feed-forward filter and a first feedback filter as a function of the first set of soft symbol estimates; wherein the first feed-forward filter and the first feedback filter are computed according to:", insert "A method for decoding a packet transmitted over a channel, the packet including a plurality of samples, said method comprising: providing a first set of soft symbol estimates; and computing a feed-forward filter and a feedback filter as a function of the first set of soft symbol estimates; wherein the feed-forward filter and the feedback filter are computed according to:"

bb. Claim 7, delete "The method of claim 5, further comprising: filtering the plurality of samples through the first feed-forward filter; and filtering the first set of soft symbol estimates through the first feedback filter.", insert "The method of claim 5, further comprising: filtering the plurality of samples through the feed-forward filter; and filtering the first set of soft symbol estimates through the feedback filter."

cc. Claim 8, delete "The method of claim 7, further comprising: providing a

first set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the first feed-forward filter and a filtering of the first set of soft symbol estimates through the first feedback filter.", insert "The method of claim 7, further comprising: providing a first set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the feed-forward filter and a filtering of the first set of soft symbol estimates through the feedback filter."

dd. Claim 10, delete "The method of claim 8, further comprising: providing a second set of soft symbol estimates; and computing a second feed-forward filter and a second feedback filter as a function of the second set of soft symbol estimates.", insert "The method of claim 8, further comprising: providing a second set of soft symbol estimates; and computing the feed-forward filter and the feedback filter as a function of the second set of soft symbol estimates."

ee. Claim 11, delete "The method of claim 10, further comprising: filtering the plurality of samples through the second feed-forward filter; and filtering the second set of soft symbol estimates through the second feedback filter.", insert "The method of claim 10, further comprising: filtering the plurality of samples through the feed-forward filter; and filtering the second set of soft symbol estimates through the feedback filter."

ff. Claim 12, delete "The method of claim 11, further comprising: providing a second set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the second feed-forward filter and a filtering of the second set of soft symbol estimates through the second feedback filter.", insert "The method of claim 11, further comprising: providing a second set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the feed-forward filter and a filtering of the second set of soft symbol estimates through the feedback filter."

gg. Claim 13, delete "A device for decoding a packet transmitted over a channel, the packet including a plurality of samples, said device comprising: a soft symbol estimator providing a first set of soft symbol estimates in response to a reception of the packet by said device; a first feed-forward filter computed as a function of the first set of soft symbol estimates; and a first feedback filter computed as a function of the first set of soft symbol estimates; wherein said first feed-forward filter and said first feedback filter are computed according to:", insert "A device for decoding a packet transmitted over a channel, the packet including a plurality of samples, said device comprising: a soft symbol estimator providing a first set of soft symbol estimates in response to a reception of the packet by said device; a feed-forward filter computed as a function of the first set of soft symbol estimates; and a feedback filter computed as a function of the first set of soft symbol estimates; wherein said feed-forward filter and said feedback filter are computed according to: "

hh. Claim 15, delete "The device of claim 13, wherein said first feed-forward filter filters the plurality of samples upon a computation of said first feed-forward filter; and said feedback filter filters the first set of soft symbol estimates upon a computation of said first feedback filter.", insert "The device of claim 13, wherein said feed-forward filter filters the plurality of samples upon a computation of said feed-forward filter as a function of the first set of soft symbol estimates; and said feedback filter filters the first set of soft symbol estimates upon a computation of said feedback filter as a function of the first set of soft symbol estimates."

ii. Claim 16, delete "The device of claim 15, further comprising: an adder providing a first set of decision feedback equalization outputs in response to a filtering of the plurality of sample through said first feed-forward filter and a filtering of the first set of soft symbol estimates through said first feedback filter.", insert "The device of claim 15, further comprising: an adder providing a first set of decision feedback equalization outputs in response to a filtering of the plurality of samples through said feed-forward filter and a filtering of the first set of soft symbol estimates through said feedback filter."

jj. Claim 18, delete "The device of claim 16, further comprising: a second feed-forward filter computed as a function of a second set of soft symbol estimates; and a second feedback filter computed as a function of the second set of soft symbol estimates, wherein said soft symbol estimator provides the second set of soft symbol estimates in response to said adder providing said first output signal.", insert "The device of claim 16, wherein: said feed-forward filter is computed as a function of a second set of soft symbol estimates; said feedback filter is computed as a function of the second set of soft symbol estimates, said soft symbol estimator provides the second set of soft symbol estimates in response to said adder providing said first set of decision feedback equalization outputs."

kk. Claim 19, delete "The device of claim 18, wherein: said second feed-forward filter filters the plurality of samples upon a computation of said second feed-forward filter; and said second feedback filter filters the second set of soft symbol estimates upon a computation of said second feedback filter.", insert "The device of claim 18, wherein: said feed-forward filter filters the plurality of samples upon a computation of said feed-forward filter as a function of the second set of soft symbol estimates; and said feedback filter filters the second set of soft symbol estimates upon a computation of said feedback filter as a function of the second set of soft symbol estimates."

ll. Claim 20, delete "The device of claim 19, wherein said adder further provides a second set of decision feedback equalization outputs in response to a filtering of the plurality of samples through said second feed-forward filter and a filtering of the second set of soft symbol estimates through said second feedback filter.", insert "The device of claim 19, wherein said adder further provides a second set of decision feedback equalization outputs in response to a filtering of the plurality of samples through said feed-forward filter and a filtering of

the second set of soft symbol estimates through said feedback filter."

mm. Claim 22, line 3, delete "a computation of a third feed-forward filter and a third feedback filter as a function of a second set of soft symbol estimates.", insert "a computation of the second feed-forward filter and the second feedback filter as a function of a second set of soft symbol estimates."

nn. Claim 23, delete "computing a first feed-forward filter and a first feedback filter as a function of the first set of soft symbol estimates; wherein the first feed-forward filter and the first feedback filter are computed according to:", insert "computing a feed-forward filter and a feedback filter as a function of the first set of soft symbol estimates; wherein the first feed-forward filter and the first feedback filter are computed according to:"

oo. Claim 25, line 2 delete "filtering the plurality of samples through the first feed-forward filter; and", insert "filtering the plurality of samples through the first feed-forward filter; and"

pp. Claim 25, line 4, delete "for filtering the first set of soft symbol estimates through the first feedback filter.", insert "filtering the plurality of samples through the feed-forward filter; and filtering the first set of soft symbol estimates through the feedback filter."

qq. Claim 26, delete "providing a first set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the first feed-forward filter and a filtering of the first set of soft symbol estimates through the first feedback filter.", insert "providing a first set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the feed-forward filter and a filtering of the first set of soft symbol estimates through the feedback filter."

rr. Claim 28, line 2, delete "for providing a second set of soft symbol estimates; and", insert "for providing a second set of soft symbol estimates; and"

ss. Claim 28, line 3, delete "computing a second feed-forward filter and a second feedback filter as a function of the second set of soft symbol estimates.", insert "computing the feed-forward filter and the feedback filter as a function of the second set of soft symbol estimates."

tt. Claim 29, line 2, delete "for filtering the plurality of samples through the second feed-forward filter; and", insert "for filtering the plurality of samples through the feed-forward filter; and"

uu. Claim 29, line 4, delete "for filtering the second set of soft symbol estimates through the second feedback filter", insert "for filtering the second set of soft symbol estimates through the feedback filter."

vv. Claim 30, delete "for providing a second set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the second feed-forward filter and a filtering of the second set of soft symbol estimates through the second feedback filter.", insert "for providing a second set of decision feedback equalization outputs in response to a filtering of the plurality of samples through the feed-forward filter and a filtering of the second set of soft symbol estimates through the feedback filter."